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EXAMINER	
ABRISHAMKAR, KAVEH	
ART UNIT	**PAPER NUMBER**
2131	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/758,637	GLICK ET AL.	
	Examiner	Art Unit	
	Kaveh Abrishamkar	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed on February 24, 2005. Claims 1-42 were originally received for consideration. Per the received amendment, claims 1 and 22 were amended. Claims 1-42 are currently being considered.

Response to Arguments

2. The arguments received on February 24, 2005, have been fully considered but are not considered persuasive because of the following reasons:

Regarding amended independent claim 1, the applicant argues that the cited prior art, Murphy (U.S. Patent No. 5,640,452) in combination with Schipper (U.S. Patent No. 5,577,122), does not teach "generating a geolocking key based on at least said location attribute." This argument is not persuasive. Schipper teaches that based on a location range from a reference station, the sender and the receiver can independently form a encryption/decryption key based on pseudorange values which are based on a roving stations location at a certain time (column 6 lines 31-67, column 7 lines 1-23). This provides a location (location identity attribute) from which a value (pseudorange values) are used to create a key (geolocking key) that is used to encrypt and decrypt information. Furthermore, the applicant argues that Murphy and Schipper are not

analogous arts. This argument is not found persuasive. Both arts pertain to the secure transmission of messages using location as a parameter for determining whether a message should be decrypted. Furthermore, Murphy and Schipper have the same assignee and belong to the same classification. Furthermore, the applicant argues that the CPA does not teach the newly added limitation "at least a specific geographic location of at least one intended recipient of the digital information." This argument is not found persuasive. The CPA teaches that only the designated receiver station, which possesses the same pseudorange values, can generate the encryption key parameters based on its location (column 7 lines 1 – 54). Regarding claims 14 and 34, the applicant argues that the claims include different limitations than claims 1 and 22, which is true, but claims 6-8 disclose using a "shape parameter" in generating a geolocking key. The same logic was applied to rejecting claims 14 and 34. Schipper discloses an apparatus for location specific encryption and decryption using a key based on one more location parameters (attributes) (lines 13-23). Schipper further states that more parameters can be added in order to "increase or reduce the security level" (column 8 lines 20-26). Murphy discloses using a shape parameter (column 7 lines 50-67), in the form of a circle with a varying diameter. This information is used to verify if the recipient is able to decrypt the information sent by the sender. The SATPS receiver has the ability to retrieve this information in the embodiment of Murphy. Schipper uses SATPS to determine the pseudorange values used to form the encryption/decryption keys. Schipper, as stated above, also states that other parameters can be additionally used to form the encryption/decryption key. Since the

SATPS is used in both embodiments, it is obvious that the Schipper embodiment can determine the region (shape parameter) and incorporate it into the forming of the encryption/decryption key to "increase or reduce the security level" (column 8 lines 20-26). Therefore, the rejection for the claims 1-42 are maintained as given below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-8, 11, 14-19, 21-29, 32-39, and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy (U.S. Patent No. 5,640,452) in view of Schipper et al. (U.S. Patent No. 5,577,122).

Regarding claim 1, Murphy discloses:

A method for controlling access to digital information, comprising:

"***identifying a location identity attribute that defines at least a specific geographic location of at least one intended recipient of the digital information***" (column 6 lines 41-45, column 7 line 22 – column 8 line 5), where Murphy states that the invention "is intended to maintain the location integrity of a signal decryption" by determining the present location as related to a selected geographic region/location.

Murphy does not explicitly disclose "***generating a unique geolocking key based at least on said location identity attribute***" or "***encrypting said digital information using said geolocking key, wherein said encrypted digital information can be accessed only at said specific geographic location of the at least one recipient.***" Schipper discloses an apparatus for location specific encryption and decryption of a signal wherein communications are encrypted or decrypted by a key based on one or more location attributes (column 7 lines 13-23). Schipper further discloses that such an implementation enables a more secure transmission method as the encryption key changes with time and is determined by the location of the mobile station at a given time (column 5, lines 18-31). Murphy and Schipper are analogous arts in that they both pertain to location-based encryption/decryption. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the apparatus of Schipper to the apparatus of Murphy to enable the security of a transmission to be a function of the location identity attribute thus providing a more secure transmission method based on a key which changes with time and location attributes.

Claim 2 is rejected as applied above in rejecting claim 1. Furthermore, Murphy discloses:

The method of claim 1, wherein said "***identifying step further comprises identifying at least a location value and a proximity value***" (column 7 line 60 – column 8 line 37, column 9 lines 1-20), wherein the receiver is only able to decrypt the

information if it is at the correct location given by the location coordinates (x,y,z) being within a region R(L,d).

Claim 3 is rejected as applied above in rejecting claim 2. Furthermore, Murphy discloses:

The method of claim 2, wherein said "***location value corresponds to a location of an intended recipient appliance of said digital information***" (column 7 line 60 – column 8 line 37, column 9 lines 1-20), wherein the receiver is only able to decrypt the information if it is at the correct location given by the location coordinates (x,y,z) being within a region R(L,d).

Claim 4 is rejected as applied above in rejecting claim 2. Furthermore, Murphy discloses:

The method of claim 2, wherein said "***location value further comprises a latitude and longitude dimension***" (column 7 line 52 – column 8 line 37), where the location coordinates are given by GPS which provides latitude and longitude by using three satellites.

Claim 5 is rejected as applied above in rejecting claim 2. Furthermore, Murphy discloses:

The method of claim 2, wherein said "***proximity value corresponds to a zone that encompasses said location***" (column 7 line 60 – column 8 line 37).

Claim 6 is rejected as applied above in rejecting claim 2. Furthermore, Murphy discloses:

The method of claim 2, further comprising "***generating a shape parameter on said proximity value, said shape parameter defining a shape of a region that encompasses said specific geographic location***" (column 7 line 60 – column 8 line 5).

Claim 7 is rejected as applied above in rejecting claim 6. Murphy does not explicitly disclose the method of claim 6, further comprising "***generating an initial key based on said shape parameter***." Schipper discloses an apparatus for location specific encryption and decryption using a key based on one more location parameters (attributes) (lines 13-23). Schipper further states that more parameters can be added in order to "increase or reduce the security level" (column 8 lines 20-26). Murphy discloses using a shape parameter (column 7 lines 50-67), in the form of a circle with a varying diameter. This information is used to verify if the recipient is able to decrypt the information sent by the sender. The SATPS receiver has the ability to retrieve this information in the embodiment of Murphy. Schipper uses SATPS to determine the pseudorange values used to form the encryption/decryption keys. Schipper, as stated above, also states that other parameters can be additionally used to form the encryption/decryption key. Since the SATPS is used in both embodiments, it is obvious that the Schipper embodiment can determine the region (shape parameter) and

incorporate it into the forming of the encryption/decryption key to "increase or reduce the security level" (column 8 lines 20-26).

Claim 8 is rejected as applied above in rejecting claim 7. Murphy does not explicitly disclose "***generating said geolocking key based on said initial key, said encrypting step further comprising encrypting said digital information using said geolocking key***." Schipper discloses an apparatus for location specific encryption and decryption of a signal wherein communications are encrypted or decrypted by a key based on one or more location attributes (column 7 lines 13-23). Schipper further discloses that such an implementation enables a more secure transmission method as the encryption key changes with time and is determined by the location of the mobile station at a given time (column 5, lines 18-31). Murphy and Schipper are analogous arts in that they both pertain to location-based encryption/decryption. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the apparatus of Schipper to the apparatus of Murphy to enable the security of a transmission to be a function of the location identity attribute thus providing a more secure transmission method based on a key which changes with time and location attributes.

Claim 11 is rejected as applied above in rejecting claim 1. Furthermore, Murphy discloses:

The method of claim 1, further comprising "***selecting preview information and including said preview information with said digital information prior to said***

encrypting step" (column 7 lines 1-5), where the encrypted information is not restricted to any one kind of information.

4. Claims 14-19, and 21 are method claims analogous to the claims 1-9 and 11 rejected above, and therefore are rejected following the same reasoning.

5. Claims 22-29 and 32-33 are apparatus claims analogous to the method claims 1-9, and 11 rejected above, and therefore are rejected following the same reasoning given above.

6. Claims 34 – 39, and 41-42 are apparatus claims analogous to the method claims 1-9, and 11 rejected above, and therefore are rejected following the same reasoning given above.

7. Claims 9-10, 12-13, 20, 30-31, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy (U.S. Patent No. 5,640,452) in view of Schipper et al. (U.S. Patent No. 5,577,122) and further in view of Shimada (U.S. Patent No. 5,922,073).

Claims 9 and 10 are rejected as applied above in rejecting claim 6. The system of Murphy and Schipper does not explicitly disclose "***the shape parameter being packaged with the encrypted digital information***" and "***transmitting the shape***

parameter and the encrypted digital information to an end user." Shimada teaches a system that controls access to subject data wherein the location identity attribute (shape parameter) is included with the file that contains the digital information and sending it to an end user (Figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the system of Shimada with the apparatus of Murphy to "more strictly protect confidential information in a data processing apparatus" (Abstract).

Claim 12 is rejected as applied above in rejecting claim 1. Murphy and Schipper do not explicitly teach, "***storing said encrypted digital information in a fixed format including at least one of CD-ROM, DVD, diskette, videocassette, and tape.***" Shimada teaches storing digital information in a fixed format such as a CD-ROM, DVD, diskette, videocassette and tape (Figure 2, column 11 lines 22-63). The benefits of storing information on a fixed format are well-known in the art, including for purposes of security (not sending information over a network), and for redundancy (backing-up data). Therefore it would have been obvious to store the digital information on the fixed format provided by Shimada for the purposes of security and data back-up.

Claim 13 is rejected as applied above in rejecting claim 9. Furthermore, Murphy discloses:

The method of claim 9, wherein said "***transmitting step further comprises transmitting said encrypted digital information in electronic form via at least one***

of telephone line, video cable, satellite broadcast, fiber optic, and wireless".

(column 7 lines 23-51).

8. Claim 20 is a method claim analogous to the claims 9-10, 12-13 rejected above, and therefore are rejected following the same reasoning given above.

9. Claim 30-31 and 40 are apparatus claims analogous to the claims 9-10, 12-13 rejected above, and therefore are rejected following the same reasoning given above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Abrishamkar whose telephone number is 571-272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KA
05/10/05

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